

an analog video receiving circuit, connected to the computer-side interface, for receiving analog video signals from one of the plural computers through the computer-side interface;

an analog video overlay image generating circuit, disposed between the computer-side interface and the user-side interface, for producing an analog overlay video signals internal to the switching system; and

an analog video overlay circuit, disposed between the computer-side interface and the user-side interface, for combining (1) a portion of the analog video signals received by the analog video receiving circuit and (2) the analog overlay video signals generated internally to the switching system to form a combined analog signal that is output to the first monitor via the user-side interface.

2 10. The system as claimed in claim 9<sup>1</sup>, wherein the analog video receiving circuit further comprises a synchronization signal detecting circuit for detecting one of a horizontal- and a vertical-synchronization signal corresponding to the analog video signals from the one of the plural computers.

3 11. The system as claimed in claim 9<sup>1</sup>, wherein the computer-side interface further comprises a computer-side mouse interface for transceiving signals to and from mouse ports of the plural computers, and

wherein the user-side interface further comprises a user-side mouse interface for transceiving signals to and from a first computer mouse.

4 12. The system as claimed in claim 9<sup>1</sup>, wherein the analog video overlay circuit comprises a multiplexer for multiplexing (1) the portion of the analog video signals received by

the analog video receiving circuit and (2) the analog overlay video signals generated internally to the switching system without requiring a frame buffer.

6 13. The system as claimed in claim 9<sup>1</sup>, further comprising a keyboard translator disposed between the computer-side and the user-side interfaces for translating a keyboard code from a first format used on the user-side to a second format used on the computer-side.

4 14. The system as claimed in claim 9<sup>1</sup>, wherein the analog video receiving circuit receives separate analog red, green and blue signals.

7 15. The system as claimed in claim 10<sup>2</sup>, wherein the analog video receiving circuit comprises a receiving circuit for receiving real-time, analog video signals.

B 8 16. The system as claimed in claim 10<sup>2</sup>, wherein the analog video receiving circuit comprises a receiving circuit for receiving real-time, analog video signals including the at least one of the horizontal- and a vertical-synchronization signal superimposed on the real-time, analog video signals.

9 17. The system as claimed in claim 15<sup>1</sup>, wherein the analog video receiving circuit receives separate analog red, green and blue signals.

10 18. The system as claimed in claim 16<sup>8</sup>, wherein the analog video receiving circuit receives separate analog red, green and blue signals.

11 19. The system as claimed in claim 9<sup>1</sup>, further comprising:  
a digital backplane; and

an analog backplane, wherein keyboard information is routed from the computer-side interface to the user-side interface on the digital backplane independent of the analog video

signals that are routed from the computer-side interface to the user-side interface on the analog backplane.

12 20. The system as claimed in claim <sup>1</sup>9, wherein the computer-side interface comprises a parallel switch for connecting the plural computers to the computer-side interface in parallel.

13 21. The system as claimed in claim <sup>1</sup>9, wherein the user-side interface further comprises a secondary user-interface for connecting to a second set of independent, dedicated cables of a second keyboard and an analog video input of a second monitor, wherein the analog video signals of any one of the plural computers can be routed simultaneously to both the first and second monitors in parallel.

B 14 22. The system as claimed in claim <sup>1</sup>9, further comprising a keyboard command detector, disposed between the computer-side interface and the user-side interface, for detecting when the first keyboard requests that the analog video signals of the one of the plural computers be replaced by analog video signals of another of the plural computers.

15 23. The system as claimed in claim <sup>14</sup>22, further comprising:

a digital backplane; and

an analog backplane, wherein keyboard information is routed from the computer-side interface to the user-side interface on the digital backplane independent of the analog video signals that are routed from the computer-side interface to the user-side interface on the analog backplane.

16 24. The system as claimed in claim <sup>1</sup>9, further comprising a keyboard command detector, disposed between the computer-side interface and the user-side interface, for detecting when the first keyboard requests that the analog video signals of the one of the plural computers